The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A tip assembly for a soldering iron powered by an electrical power means comprising:

two electrodes, each having electrical resistivity of 1,500 micro-Ohm cm or greater, each electrically isolated from the another by an insulator disposed between them, each of which said electrodes are configured to be separately electrically connected to the positive and negative terminals of said electrical power means.

2. The tip assembly of Claim 1, wherein the electrodes each have thermal conductivity less than or equal to 10 BTU/hr-ft-°F., flexural strength of at least about 1,500 psi, and a density of about 1.5 to 1.75 g/cc.

3. The tip assembly of Claim 2, wherein the electrodes each have thermal conductivity of 1 to 10 BTU/hr-ft-°F.

4. The tip assembly of Claim 1, wherein the electrodes each have electrical resistivity of over 3,000 micro-Ohm cm.

5. The tip assembly of Claim 4, wherein the electrodes each have thermal conductivity less than or equal to 10 BTU/hr-ft-°F, flexural strength of at least about 1,500 psi, and a density of about 1.5 to 1.75 g/cc.

6. The tip assembly of Claim 5, wherein the electrodes each have thermal conductivity of 1 to 10 BTU/hr-ft-°F.

7. In a soldering iron powered by an electrical power means, the improvement comprising:

a soldering tip comprising two electrodes, each having electrical resistivity of 1,500 micro-Ohm cm or greater, each electrically isolated from one another by an insulator disposed between them, each of which said electrodes are separately electrically connected to the positive and negative terminals of said electrical power means.

8. The tip assembly of Claim 7, wherein the electrodes each have thermal conductivity less than or equal to 10 BTU/hr-ft-°F., flexural strength of at least about 1,500 psi, and a density of about 1.5 to 1.75 g/cc.

9. The tip assembly of Claim 8, wherein the electrodes each have thermal conductivity of 1 to 10 BTU/hr-ft-°F.

10. The tip assembly of Claim 7, wherein the electrodes each have electrical resistivity of over 3,000 micro-Ohm cm.

11. The tip assembly of Claim 10, wherein the electrodes each have thermal conductivity less than or equal to 10 BTU/hr-ft-°F, flexural strength of at least about 1,500 psi, and a density of about 1.5 to 1.75 g/cc.

12. The tip assembly of Claim 11, wherein the electrodes each have thermal conductivity of 1 to 10 BTU/hr-ft-°F.

13. A soldering apparatus comprising a tip attached to a body and an electrical power means, wherein said tip is rigidly held in place by said body and is comprised of two electrodes, each having electrical resistivity of 1,500 micro-Ohm cm or greater, each electrically isolated from one another by an insulator disposed between them, each of which said electrodes are separately electrically connected to the positive and negative terminals of said electrical power means, and said body comprises an elongated substantially tubular member of any rigid heat-resistant material.

14. The tip assembly of Claim 13, wherein the electrodes each have thermal conductivity less than or equal to 10 BTU/hr-ft-°F., flexural strength of at least about 1,500 psi, and a density of about 1.5 to 1.75 g/cc.

15. The tip assembly of Claim 14, wherein the electrodes each have thermal conductivity of 1 to 10 BTU/hr-ft-°F.

16. The tip assembly of Claim 13, wherein the electrodes each have electrical resistivity of over 3,000 micro-Ohm cm.

17. The tip assembly of Claim 16, wherein the electrodes each have thermal conductivity less than or equal to 10 BTU/hr-ft-°F, flexural strength of at least about 1,500 psi, and a density of about 1.5 to 1.75 g/cc.

18. The tip assembly of Claim 17, wherein the electrodes each have thermal conductivity of 1 to 10 BTU/hr-ft-°F.